

Smart Roadside Initiative

User Manual

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16. Abstract This document provides the user instructions for the Smart Roadside Initiative (SRI) applications including mobile and web-based SRI applications. These applications include smartphone-enabled information exchange and notification, and software components that present aggregated information via a system dashboard. SRI supports jurisdiction-specific decision-making about enforcement actions, inspections and reporting.			
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Chapter 1. Introduction

SRI Background

The Smart Roadside Initiative began a few years ago when a representative cross-section of the commercial vehicle community attended the 2008 Smart Roadside Workshop. The participants at the workshop agreed that commercial vehicle safety, security, and mobility systems should be linked to a coordinated and comprehensive roadside program. A workshop sponsored by the Federal Motor Carrier Safety Administration (FMCSA), the Federal Highway Administration (FHWA), and the Florida Department of Transportation (FDOT) was held in 2008, and the stakeholder community identified goals and objectives—along with individual projects—that should be part of the program.

Smart Roadside is currently a mode-specific item in the U.S. Department of Transportation (USDOT) Intelligent Transportation Systems (ITS) Strategic Research Plan, 2010–2014. However, it is a multimodal initiative that includes not only FMCSA and FHWA, but also the National Highway Traffic Safety Administration (NHTSA), the Federal Transit Administration (FTA), and the Office of the Secretary for Research and Technology due to its synergies with the Connected Vehicle Program.

The vision for the Smart Roadside is one in which commercial vehicles, motor carriers, enforcement resources, highway facilities, intermodal facilities, toll facilities, and other nodes on the transportation system collect data for their own purposes and share the data seamlessly with relevant parties in order to improve motor carrier safety, security, operational efficiency, and freight mobility. This vision will be achieved through the application of interoperable technologies and information sharing between in-vehicle, on-the-road, and freight systems. In addition to articulating the vision, stakeholders representing the private-and public-sectors who attended the workshop recommended that FMCSA and FHWA actively pursue Smart Roadside with the following goals, which continue to be valid:

- Enhance roadside enforcement operations through improved screening and automation of inspection and compliance checks.
- Provide enhanced road condition and traffic information to support commercial vehicle route planning and to support improved access to intermodal ports, urban pick-up, and delivery locations.
- Identify key components (e.g., motor carrier, commercial vehicle, commercial driver, cargo) and communicate with commercial vehicles in real-time at highway speeds.
- Ensure that the necessary standards, protocols and architecture are developed to support both interoperable operations across the country and appropriate data privacy requirements.

For the last several years, SRI capabilities have been under development. Beginning in August 2015, prototype tests of SRI capabilities to identify and screen for weight, credential, and safety compliance will begin for two locations, one in Michigan and one in Maryland.

Intended Audience

The audience for this document includes commercial motor vehicle (CMV) drivers and roadside CMV inspectors. The CMV drivers interface with the SRI prototype via a smartphone application. The CMV inspectors interface with the SRI via the system dashboard that provides the inspector truck and driver identification, truck weight and driver and carrier safety information. The CMV interface is accessible by laptop/desktop and by smartphone.

Scope and Purpose of Document

This document is intended to provide users of the Smart Roadside Initiative prototype system with a working understanding of the system and procedures for its use.

Chapter 2. The SRI System

Purpose, Function and Operating Environment

The USDOT Smart Roadside Initiative comprises several different programs that are in various stages of operation and deployment, including:

- **Electronic Screening** (E-Screening) is a key component of the information collection systems and communications networks that support commercial vehicle operation, referred to as the Commercial Vehicle Information Systems and Networks (CVISN). E-Screening involves automatic identification and safety assessment of a commercial vehicle in motion. With E-Screening, safe and legal vehicles are allowed to continue on their route. Enforcement resources can be used to target unsafe vehicles and carriers. Currently, E-Screening occurs at fixed stations and on-demand verification sites.
- **Virtual Weigh Stations/Electronic Permitting** was the focus of an Enforcement Technologies Study conducted in 2008 and 2009. The focus of the Study was to develop the foundation for roadside technologies that can be used to improve truck size and weight enforcement. Outcomes of this study included development of a Concept of Operations for Virtual Weigh Stations and led to development of recently completed Virtual Weigh Station/e-Permitting Architecture. The Virtual Weigh Station concept will further increase the number of electronic screenings and, depending upon the virtual weigh station configuration, will provide a more enhanced safety and credentials assessment.
- **Wireless Roadside Inspection Program** research is currently being conducted to increase the number and frequency of safety inspections at the roadside to obtain safety data about the carrier, commercial vehicle, and its driver at highway speeds. The program is examining technologies that can transmit safety data directly from the vehicle to the roadside and from a carrier system to a government system. The safety data being considered for transmission include basic identification data (for the driver, vehicle, and carrier), the driver's hours of service record, and potentially vehicle sensor data that provide information on safety belt use and lighting status. Enforcement systems and staff will use this data set to support E-Screening and inspections at locations such as staffed roadside sites, virtual weigh stations, and on-demand verification sites.
- **Truck Parking** research and ITS-based project deployments will provide commercial vehicle parking information so that commercial drivers can make advanced route planning decisions based on hour-of-service constraints, location and supply of parking, travel conditions, and loading/unloading.

The SRI Prototype is the focus of this test and user documentation. At the heart of the SRI prototype is the SRI Information Aggregation System (SIAS). This component contains the web services and other communications interfaces which connect to external sensors and systems to collect, verify, and present the gathered information, such as license plate, truck weight, USDOT number, and driver information to the relevant information users, including law enforcement officers and truck drivers.

Table 1 presents the data element groups of the information exchange sequences associated with SRI.

Table 1. Data Elements Groups of the Information Exchange Sequences

Group	Description
VID	Vehicle Identification
VOD	Vehicle Operational Data
TOD	Trailer Operational Data
VAD	Vehicle Additional Data from other sensors
DCD	Driver Credentials and other information relevant to operating the vehicle
CDS	Carrier Data Set
SVR	State CMV Report
ISR	Inspection Station Report

Figure 1 depicts its relationship to the other SRI prototype components.¹ Note that the red items are the components developed by Leidos under contract to USDOT; gray items are existing systems and connections.

¹ SAIC, SRI Prototype System Integration and Test Plan, May 2015.

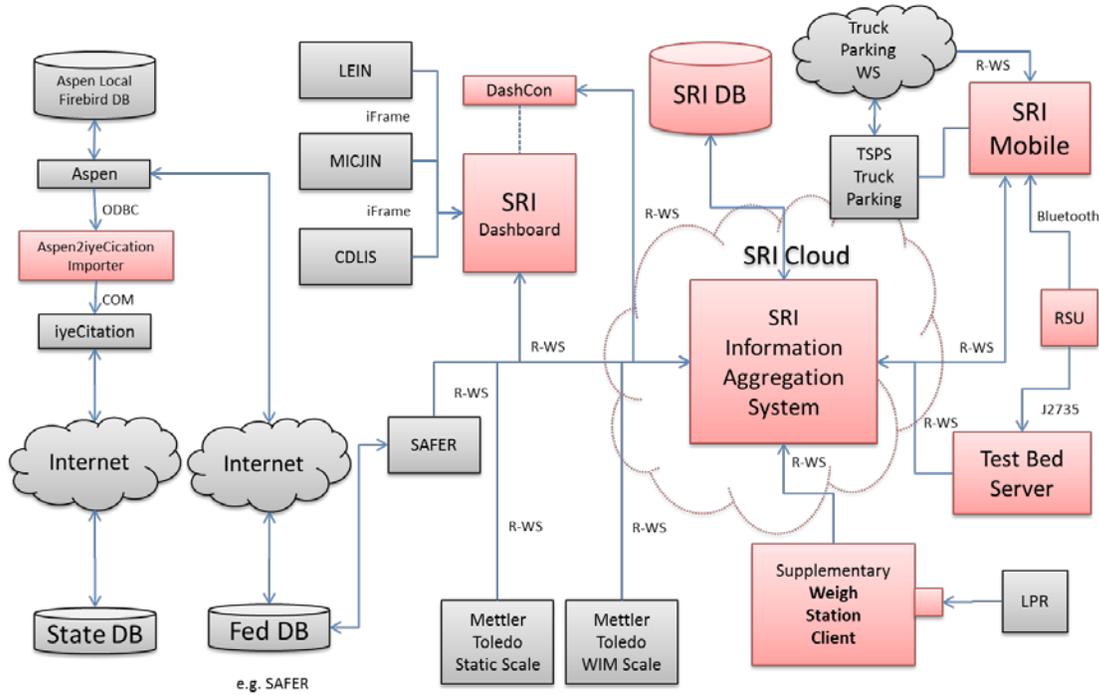


Figure 1. Interconnectivity of the SRI Information Aggregation System.

Pre-Inspection Data Exchanges

The sequence begins when a CMV enters a pre-determined interrogation zone or geo-fence and ends with a decision about whether or not to issue an inspection notification. The driver SRI Mobile application (app) or on-board unit (OBU) and/or roadside unit (RSU) at the interrogation zone either identify the vehicle by a unique identification number, or the RSU senses a characteristic of the vehicle that prompts an agent to issue an inspection notification. Each of the nine process steps are summarized as follows:

1. **Vehicle Identification** – when a CMV arrives at an identification zone, one or more of the four vehicle identification methods provide captured data to the SRI Dashcon (SDC) through a sequence of data exchanges. If present, RSUs identify vehicles directly using license plate reader (LPR), USDOT reader (USDOT-R), radio frequency identification (RFID), dedicated short range communication (DSRC), and potentially other methods. OBUs or smartphones may also identify the vehicle by communicating their geo-fence position to third-party remote servers. As this information is obtained it is relayed to the SRI Information System Aggregation System (SIAS) to be displayed on the SRI Dashboard.
2. **Data Acquisition** – the RSUs acquire additional information about the identified vehicle such as its weight, height, operating condition, and other parameters listed in the data element groups of Table 1. This data may occur in parallel with vehicle presence detection or identification in the interrogation zone. The SDC encapsulates and provides these vehicle characteristics to the SIAS.

3. **Information Dashboard** – the SIAS aggregates the relevant information about the vehicle, driver, and carrier. The encapsulated data set includes elements identified in the groups listed in Table 1. The SIAS populates the SRI Dashboard with the available data elements. These are configurable and may include information about the vehicle statistics and condition.
4. **Information Synthesis** – the SIAS collects and aggregates the roadside data, and queries the relevant FMCSA systems and databases using their system-specific application program interface (API). The query relates to obtaining updated and missing information relevant to the interrogated vehicle, its operator, and its carrier.
5. **Back-Office Response** – the government, motor carrier, and potentially third-party systems respond with the requested information.
6. **Information Aggregation** – the SIAS reconciles, adds missing data, and synthesizes a transaction record relevant to the screened vehicle. SIAS is designed to query various systems including SAFER or possibly a jurisdiction-specific, rules-based engine to provide an enforcement recommendation on the SRI Dashboard. At this time, SRI uses the pass/fail flag from the Mettler-Toledo weigh-in-motion (WIM) scale system to determine if the driver is required to stop at the weigh station.
7. **Enforcement Recommendation** – as applicable, the specific State system and the Mettler-Toledo WIM scale system responds with an enforcement recommendation based on the truck transaction record content and jurisdiction-specific or default rules.
8. **Inspection Decision** – if applicable, the SIAS pushes the notification decision and message to the SDC, which activates the appropriate RSU function. For vehicles that have OBUs that connect to third-party providers, the SIAS will forward a notification request to their provider system to issue the appropriate notification and message to the OBU of the interrogated vehicle.
9. **Inspection Notification** – if the decision was to notify the driver to stop for an inspection, then the RSU, the OBU server, or smartphone activates the appropriate message, typically either a pass or fail message. Roadside messages may include electronic signs, OBU display or indicators, and a smartphone.

Upon issuing a notification to the driver, some may stop in the inspection site and others may not. The SIAS will flag the records of vehicles that ignored inspection notifications. The SIAS reporting functions include statistics of ignored notifications. The system can determine when a driver has ignored an inspection notification if the vehicle is again identified at an interrogation zone downstream of the inspection site. The vehicles of drivers that ignore inspection notifications may also be identified when pending or pre-populated inspection reports have not been updated or submitted for some pre-determined time-period after the notification was issued.

Inspection Data Exchanges

Once a vehicle stops for inspection, more equipment maybe activated to collect additional data for credentials verification, and to determine compliance with jurisdiction licensing and/or safety regulations. Inspectors may gather additional information about the vehicle, its driver, and the carrier. The following is a sequence of steps in the data exchanges that could follow:

- **Data Augmentation** – additional RSUs and inspection site systems may log new data to the SDC. Inspectors may enter data manually into a variety of electronic forms during or after the inspection. To help speed up the data logging processes, as the officer is

entering his inspection information into Aspen, SIAS will provide an icon that, when activated, will launch iyeCitation, which will pre-populate the inspector's fields with relevant data from the inspection screen process. This is only available in Michigan. Maryland does not use the iyeCitation software at this time.

- **Dashboard Update** – the SIAS will post updated data from the SDC to the SRI Dashboard and interact with the inspectors via the dashboard client user interface.
- **Information Update** – the SIAS posts updated information about the vehicle, its driver, and the carrier to the SIAS for reconciliation.
- **Information Verification** – the SIAS requests verification of the updated information from government's SAFER system.
- **Citation Decision** – the SIAS posts data element discrepancies for display on the SRI Dashboard. Inspectors can observe the discrepancies, if any, and decide on a citation action.
- **Citation Issuance** – if issuing an electronic citation, the SIAS can be programmed to forward the citation to the appropriate carrier back-office systems.

Existing systems such as Aspen primarily post new or updated inspection data to back-office systems. In instances where Aspen or equivalent systems are not available, the SIAS is capable of submitting updated inspection reports to update the relevant back-office systems, including SAFER.

Test Scenarios

The SRI system capabilities will be tested at two locations, one in Michigan and one in Maryland. The following describes two prototype test scenarios and the capabilities being tested.

Michigan Site Summary

The SRI prototype in Michigan will utilize interconnectivity via internet and cellular communications. The SIAS interfaces with Mettler-Toledo to exchange weight information from both the ramp weigh-in-motion (WIM) and the static scale at the station. The SIAS also interfaces to SAFER to exchange carrier data, Aspen, and a third-party electronic ticketing system from LexisNexis called iyeCitation to enter and exchange inspection data.

The SRI prototype includes a mobile application for truck drivers. This application provides a mechanism for drivers to enter their license number, vehicle identification number (VIN), USDOT number, and license plate number, as well as a photo of their specific vehicle. In addition, this application provides the communication back to the driver regarding their weigh station instructions. The mobile application interfaces with the SIAS to collect data from the SRI Mobile app for presentation to law enforcement users via the SRI Dashboard. The SRI Dashboard contains each source of information available to the user. In the case of the Michigan prototype, this will include:

- Mettler-Toledo Ramp WIM.
- Mettler-Toledo Static Scale.
- SRI mobile application.

- SAFER lookup results (based on USDOT number that is either entered by the user or that is received from the SRI mobile application).
- A field to allow the user to enter the vehicle USDOT number (if not available via the SRI mobile application or SAFER).
- An embedded panel to provide access into the MICJIN portal.
- A button to facilitate the population of iyeCitation with Aspen data (i.e., the means by which the SIAS accesses the inspection data from Aspen and pre-populates the electronic ticket in iyeCitation).

The mobile application for the truck driver:

- Includes fields for the driver to enter their relevant information (when opening the mobile application for the first time).
- Sends the result of the Mettler-Toledo weight assessment (pass or fail) to the driver via a visual red light/green light screen via cellular communication.
- Provides truck parking information (using the Truck Smart Parking Service, TSPS), which is automatically displayed for the driver while traveling before or after the weigh station. These actions are invoked via multiple geo-fences defined by the SRI prototype.

Maryland Site Summary

The SRI prototype in Maryland will also utilize the interconnectivity described by Figure 1 by using internet and cellular communications, but will also include a DSRC protocol to facilitate the communication between the vehicle and the roadside. As in Michigan, the SIAS interfaces with the Mettler-Toledo scales to exchange weight information from both the static scale at the station and the ramp weigh-in-motion (WIM). The Maryland prototype also interfaces to a third party LPR from Elsag. The SIAS will exchange carrier data with SAFER.

The SRI prototype includes a mobile application for truck drivers. This application provides a mechanism for drivers to enter their license number, vehicle identification number (VIN), USDOT number, and license plate number, as well as a photo of their specific vehicle. In addition, this application provides the communication back to the driver regarding their weigh station instructions – in Maryland, two tests will be performed, one via DSRC and the second test via cellular as in Michigan. Therefore, the hardware in Maryland will include both a DSRC-enabled OBU in the vehicle and a roadside unit (RSU). The OBU will communicate to the SRI Mobile app via Bluetooth.

As in Michigan, the mobile application interfaces with the SIAS; data from the SIAS is configured for presentation to law enforcement users via the SRI Dashboard. The SRI Dashboard contains each source of information available to the user. In the case of the Maryland prototype, this will include:

- Mettler-Toledo Ramp WIM.
- Mettler-Toledo Static Scale.
- Elsag LPR.
- SRI mobile application.
- SAFER lookup results (based on USDOT number that is either entered by the user or that is received from the SRI mobile application).

- A field to allow the user to enter the vehicle USDOT number (if not available via the SRI mobile application or SAFER).

The mobile application for the truck driver:

- Provides fields for the driver to enter their relevant information (when opening the mobile application for the first time).
- Sends the result of the Mettler-Toledo weight assessment (pass or fail) to the driver via a visual red light/green light screen via cellular communication.

Users

As described in section 1.2, the intended users of this document are commercial vehicle drivers and roadside commercial vehicle inspectors who will participate in the two prototype tests of the SRI system.

Chapter 3. User Processes

This section provides users of the SRI prototype system written instructions and illustrations for use of the mobile applications and SRI Dashboard. It provides a series of procedures for SRI users to exchange information with the SRI prototype system and to interpret the prototype outputs. For each process, a description is provided along with illustrations of how the user interacts with each process.

Section 3.1 describes the processes used by commercial drivers interfacing with the SRI prototype system using smartphones. It also describes the notifications that drivers will receive from the system via their smartphones.

Section 3.2 describes the processes for roadside inspectors to log into the SRI web application and access and use the SRI Dashboard.

Commercial Vehicle Drivers

The primary interface between commercial drivers and the SRI prototype system is a smartphone application using cellular communications (for the Michigan prototype test) and via smartphone and a DSRC onboard unit enabled by cellular, Bluetooth, and DSRC communications (for the Maryland prototype test). The mobile applications require the drivers to enter their driver's license number, VIN, USDOT number, and tractor license plate number, as well as a photo of their specific vehicle. This occurs initially when setting up the SRI mobile application and is updated if the driver is operating a different truck. As a driver enters the proximity of a weigh station or roadside inspection site, the information is relayed to the SRI Dashboard along with the gross vehicle weight from the WIM scale. If the truck weight measurements, driver and company safety performance, and inspection information warrants a bypass, existing roadside signs will indicate

to the driver whether he/she is required to stop for inspection or can continue on their trip without stopping. In addition, the mobile application on the smartphone will indicate a red or green condition indicating the driver must stop for inspection or can continue without stopping, respectively. The driver processes are described in the following subsections.

Note: the SRI Mobile application will provide audible instructions to the driver while the vehicle is in motion so that the driver does not have to read any text on the phone. Also, the SRI Mobile Application will not allow any interaction with the phone if the truck is moving. The driver only interacts with the Driver Registration, "Driver Sign-In" and "Driver and Truck Information Entry" screens pre-trip and not while driving, see below.

Driver Registration

The driver opens the SRI Smartphone application and is presented with a sign-in screen (Figure 2). If the driver is new, he/she can register a user name and password by selecting "New Here? / Sign Up" on the sign-in screen. The registration screen, shown in Figure 3, prompts the new user to enter their email address and asks them to enter a user name and password for use of the SRI application. The new user then selects "Sign Up" to be registered for SRI use and is returned to the sign-in screen.

Driver Sign-In

Once a driver has been registered to SRI, he/she can sign into the application by entering their username and password and then selecting “Sign In” on the sign-in screen (Figure 3). If a driver forgets their password, they can touch “Forgot Password” and the application will prompt the user to enter their username and the password will be sent to their email address for security reasons.

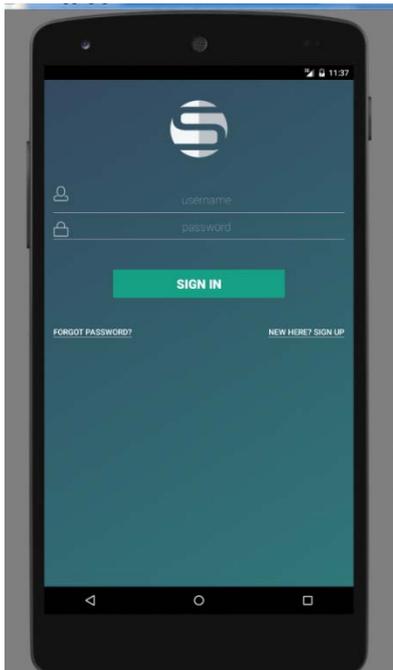


Figure 2. SRI Mobile Application Sign-in Screen.

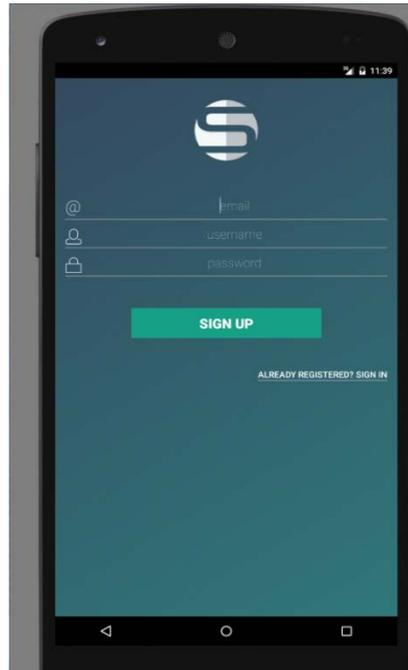


Figure 3. Registration Screen.

Driver and Truck Information Entry

When a driver has signed on to the SRI mobile application, the application presents an “Edit Profile / Weigh Station Notification” screen, shown in Figure 4. If the driver has not set up a trip profile or would like to edit the current profile, the driver selects “Edit Profile.” Then, he/she can enter their driver’s license number, vehicle identification number (VIN), USDOT number, tractor license plate number, and take and upload a photo of their specific vehicle. This is accomplished by entering the information, taking or selecting a truck image, then selecting “Save” on the “Truck Information” screen shown in Figure 5.

To capture an image of their truck, the driver touches the truck image at the top of the screen to access the “Select Truck Image” screen (Figure 6). The “Select Truck Image” screen has four icons at the bottom of the screen. Their functions are as follows:

- A camera icon - the driver touches the icon to activate the smartphone’s camera function to take a picture of his truck.

- A file folder icon - The driver touches the file folder icon to view saved images of truck(s). For a driver to select an image, he touches the image and then touches the check mark icon at the bottom of the screen.
- An X icon - The driver can delete the currently highlighted image by touching the X icon).
- A check mark (allowing the driver to select the image showing the truck he is driving).

When the driver has made his selection of truck images, he touches the check mark icon to save the image and return to the “Truck Information” screen. If the profile is complete or updated, the driver selects “Save” on the “Truck Information” screen. The application then returns the driver to the “Edit Profile / Weigh Station Notification” screen.



Figure 4. Edit Profile/Weigh Station Notification Screen

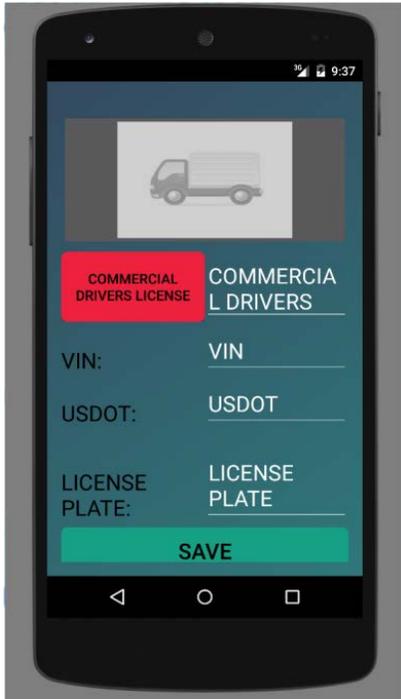


Figure 5. Truck Information Screen.



Figure 6. Truck Selection Screen.

Weigh Station Notification Screens

Once the trip profile has been edited, the driver selects “Weigh Station Notification” on the “Edit Profile / Weigh Station Notification” screen. This will allow the driver to receive notifications as he/she is approaching, entering and exiting the weigh station. These notifications will indicate to the driver to follow the roadside signals given by the weigh station, but also provide, via the smartphone, instructions/status as to whether continuing on without stopping or whether the driver must stop for further inspection. The sequence of screen notifications is presented in Figures 7 through Figure 10 below.

Approaching Weigh Station

On approaching the weigh station, the application will highlight in blue-green the message “Approaching Weighstation” at the top of the screen and a will give a notification directing the driver to follow roadside signage, Figure 7.



Figure 7. Approaching Weigh Station Notification.

Weigh In-Motion

As the truck is weighed by traveling over the WIM, the application will highlight in green the message “Pass” on the screen if the truck is cleared to continue without stopping as shown in Figure 8. If the truck is not cleared and must stop at the weigh station, a “Fail” message will be displayed on the screen as shown in Figure 9.



Figure 8. Pass Indication Notification Screen



Figure 9. Fail Indication Notification Screen.

Truck Parking Information

When a truck has exited the geo-fence of the weigh station, the application will present nearby locations for the truck driver to park if he/she so chooses. This is based on the proximity of the smartphone to truck rest stops and parking plazas. To conform to FMCSA rules, the driver cannot touch the application to get any additional information while the vehicle is in motion to conform to FMCSA rules about the parking areas shown. The “Truck Parking” screen is presented in Figure 10.

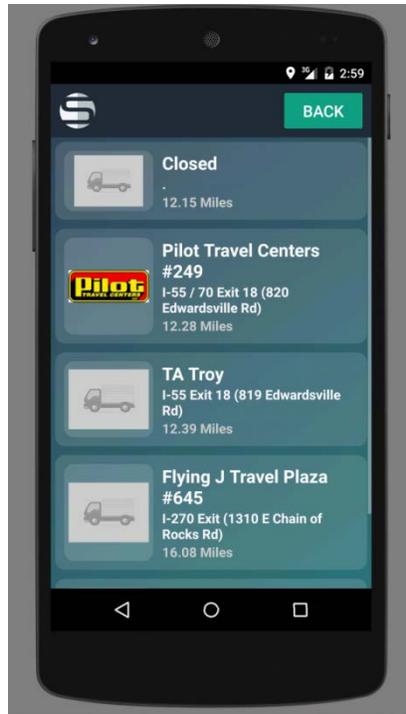


Figure 10. Truck Parking Screen

Roadside Inspectors

SRI Dashboard

The primary SRI user interface for roadside commercial vehicle inspectors is the SRI Dashboard located on the SRI website. The Dashboard displays the queue of trucks waiting to be reviewed on the left of the screen. The inspector can scroll down and select any one of them to obtain a safety snapshot for the selected vehicle. Vehicles not in compliance with weight regulations are indicated in red.

In the body of the screen the SRI Dashboard displays:

- Driver, truck, and company identification information tied to the mobile phone application.
- Readings from the ramp WIM scale.
- Reading from the static weight scale, if such a measurement is conducted.
- Safety information from SAFER.

This information provides a snapshot of weight and safety compliance for the driver, truck, and company. Additionally, the SRI Dashboard gives the inspector the ability to query SAFER by entering a carrier's USDOT number.

The inspector can use the weigh station signage at any point to override the SRI and indicate to a driver that they must stop for further inspection.

To access the SRI Dashboard screen, the inspector(s) log on to the SRI website at: <http://sri.leidosweb.com/DashCon/>. By clicking on the "Dashboard" button on the site homepage, as shown in Figure 11, the inspector is brought to a log-in page, shown in Figure 12, where he/she enters their username and password to access the Dashboard screen. Figure 13 presents the SRI Dashboard screen.

Navigating the Dashboard

As the trucks enter the weigh station and are weighed by the ramp WIM, the image of the truck and its weight are presented in the order of their entrance into the weigh station (the "queue") on the left side of the dashboard. Trucks in the queue that are non-compliant with weight regulations are highlighted in red, while trucks operating at legal weight are highlighted in green. As noted above, the body of the screen presents the identification, weight, and safety history of the truck, driver, and trucking company for the first truck at the top of the queue (last into the weigh station).

The inspector can control the presentation of the trucks in the queue by using the "Truck Screening" tool bar at the top left hand side of the dashboard. By clicking on the "?" icon, the inspector can select and view:

- "All" trucks (all trucks entering the weigh station)
- "Passed" trucks (trucks that passed weight inspection)
- "Failed" trucks (trucks that failed weight inspection)

From the Queue

The inspector can select the time period (number of minutes back from current time) for the trucks in the queue that he/she would like to view by clicking on the “clock” icon and selecting one of the following time periods:

- Five minutes
- Thirty minutes
- Sixty minutes
- One-hundred and twenty minutes

Using the “Truck Screening” tool bar, the inspector can select to “Lock” or “Unlock,” which allows the inspector to freeze the screen for a selected truck from the queue (locked) or allow the screen to update based on data associated with each new truck as it moves across the ramp WIM.

Quick link to MICJIN.

On the far right of the dashboard there is a small icon, MICJIN. When selected another popup window will appear typically on a second monitor. An officer is able to login separately to MICIJIN on one monitor and continue to view the SRI Dashboard on the primary monitor. To utilize this link the officer will have to be logged into the Michigan VPN to access MICIJIN.

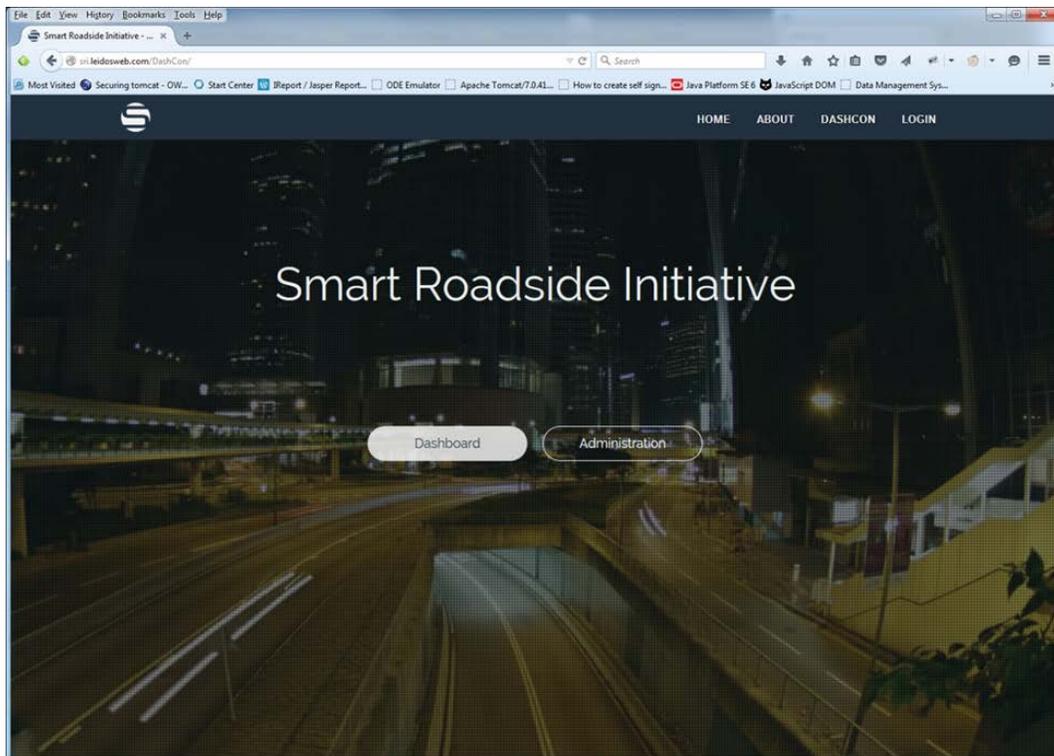


Figure 11. SRI Website

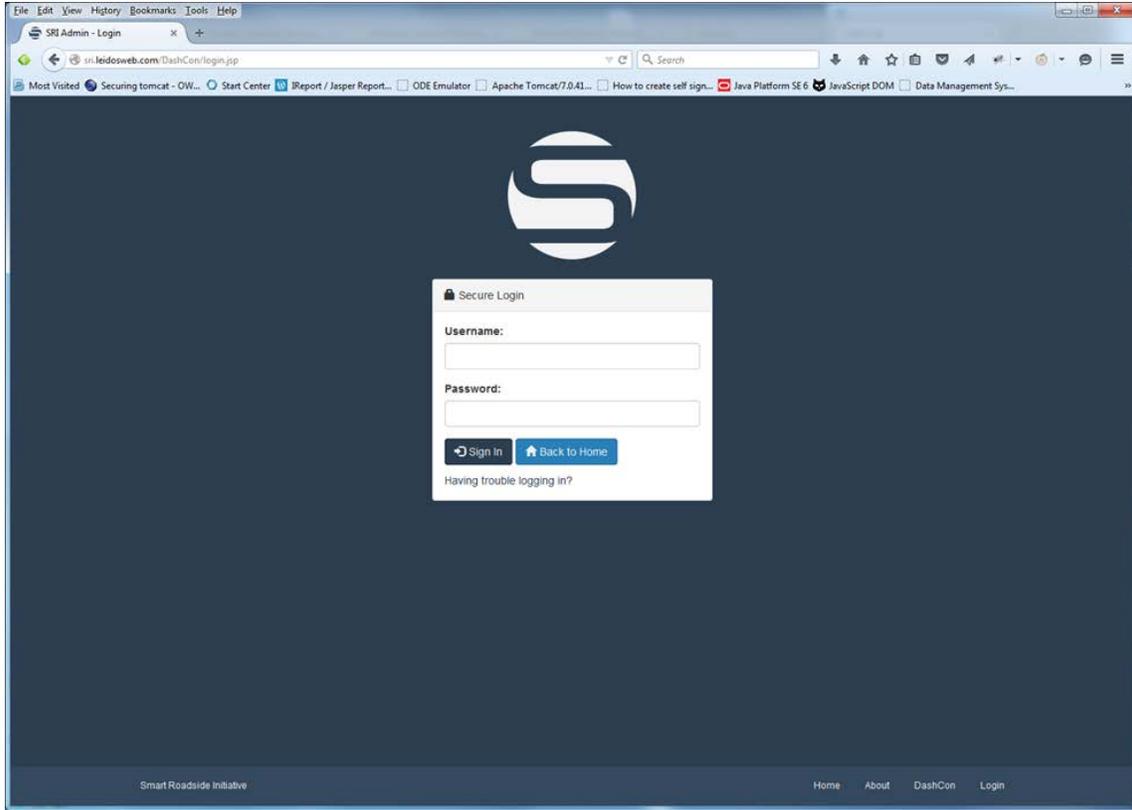


Figure 12. SRI Log-in Screen

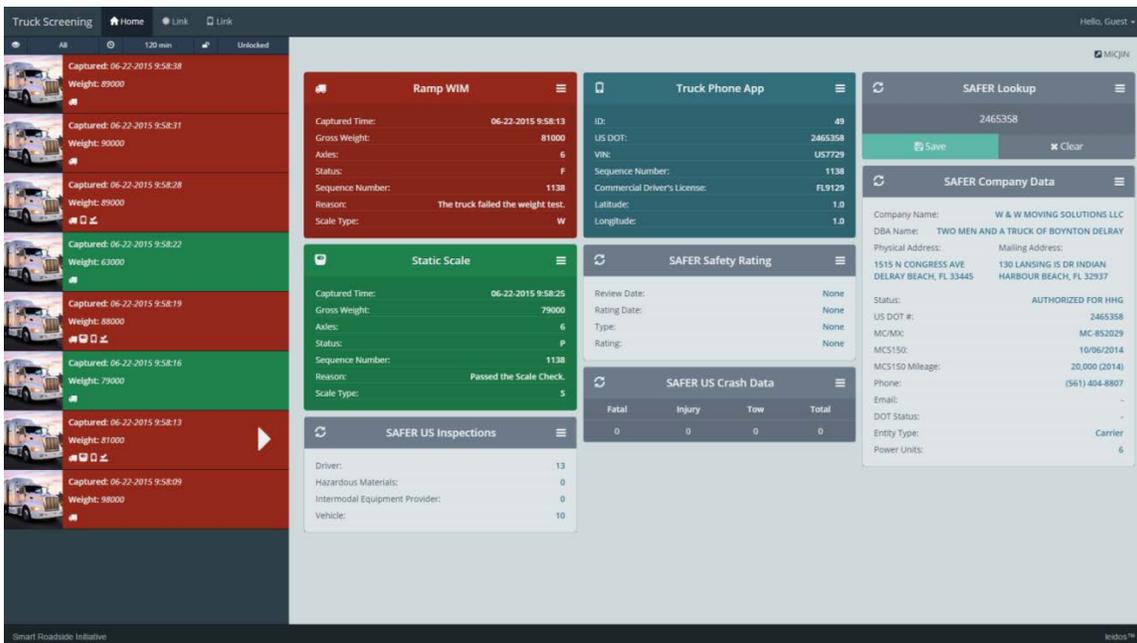


Figure 13. SRI Dashboard Screen

Appendix A. List of Acronyms

API	Application Program Interface
CMV	Commercial Motor Vehicle
CMV	Commercial Motor Vehicle
ConOps	Concept of Operations
CVISN	Commercial Vehicle Information Systems and Networks
CVO	Commercial Vehicle Operations
CVSA	Commercial Vehicle Safety Alliance
DSRC	Dedicated Short Range Communications
E-Screening	Electronic Screening
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
GUI	Graphical User Interface
ISS	Inspection Selection System
ITS	Intelligent Transportation Systems
ITS-JPO	Intelligent Transportation Systems Joint Program Office
LPR	License Plate Reader
MICJIN	Michigan Criminal Justice Information Network
OBU	On-Board Unit
RFID	Radio Frequency Identification
RSU	Roadside Unit
SDC	SRI Dashcon
SIAS	SRI Information System Aggregation System
SRI	Smart Roadside Initiative
UI	SRI User Interface
USDOT	United States Department of Transportation
USDOT-R	USDOT Reader
VIN	Vehicle Identification Number
WIM	Weigh In Motion

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